BUREAU OF ENVIRONMENT
CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting
DATE OF CONFERENCE: January 16, 2019
LOCATION OF CONFERENCE: John O. Morton Building
ATTENDED BY:

NHDOT
Matt Urban
Sarah Large
Ron Crickard
Tim Boodey
Doug Locker
Marc Laurin
Jennifer Reczek
Bob Juliano
Tobey Reynolds

ACOE
Mike Hicks

Federal Highway
Jamie Sikora

NHDES
Lori Sommer
Eben Lewis
Chris Williams

NHF&G
Carol Henderson

NHB
Amy Lamb

Consultants/Public Participants
James Hall
Stephen Hoffman
Josh Lund
Christine Perron
Stephanie Dyer-Carroll
Dan Hageman
James Murphy

PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: *(minutes on subsequent pages)*

(When viewing these minutes online, click on a project to zoom to the minutes for that project)

NOTES ON CONFERENCE:

Finalize December 19, 2018 Meeting Minutes
Matt Urban indicated that a few comments came in for December's minutes. Lori Sommer asked that we touch base with Gino Infascelli prior to finalizing the minutes. Gino provided comments when the initial draft was sent out. All comments were incorporated into the minutes and were finalized.

Hampton, #42439
Doug Locker gave an overview of the proposed maintenance work to bridge 235/025 in Hampton along NH 1A over the Hampton River. It was noted that there is a separate project, Seabrook-Hampton 15904, planned to replace the bridge scheduled 5 years out from now. D. Locker described the proposed work by Bureau of Bridge Maintenance which addresses erosion at the southwest abutment. The proposed work includes excavation at the southwest abutment, placing geotextile, and placing gabion baskets. It was stated that the proposed work would require the use of an excavator within the tidal area.

Carol Henderson asked for the anticipated timing for this project. Doug Locker stated that Bridge Maintenance would prefer to begin work in the spring of 2019. Tim Boodey stated that the ACOE intends to dredge some material in the area.

C. Henderson recommended contacting Brendan Clifford on the basis of the Piping Plover species present in the area. C. Henderson mentioned this was a sensitive area between April and August with respect to the habitat not the noise.

Mike Hicks asked if there was federal funding. D. Locker responded by saying no. M. Hicks asked if Bridge Maintenance had contacted Section 408. D. Locker responded by saying no, but that they would make an effort to address this. M. Hicks also mentioned the section 10 permit. M. Hick asked about a historic review.

Matt Urban and M. Hicks agreed this will fall under the general permit.

Amy Lamb mentioned the reconstruction project to this bridge has a NHB file number of 18-2036. A. Lamb also asked where the access to the bridge would be. D. Locker said it was not determined where access would need to be. A. Lamb noted that the existing vegetation would all need to be protected.
Marc Laurin mentioned most of this information could be acquired through Jennifer Reczeck.

Lori Sommer brought up that there was a previous permit (DES# 2007-2607) for this bridge, but there were no erosion control plans for this project. D. Locker said there would be erosion control plans for this permit.

It was brought up that the ACOE project would begin in October. It was also mentioned that there were exposed utilities in the area and there is a recommendation to coordinate with the town.

L. Sommer expressed an interest to see this project at another Natural Resource Agency meeting. D. Locker agreed to return with the same project.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Hill, #41661

To start the meeting, James Hall provided the following project overview summary to the Natural Resource Agency personnel:

- Bridge was constructed in 1960 and closed in 2017. 21'-6" span with plenty of hydraulic capacity. Abutments are in good conditions, however the superstructure is in poor condition.
- Alternatives to replace the superstructure consist of a precast non-voided slab or a cast-in-place slab.
- It is recommended to construct a 21'-6" long x 23' wide precast non-voided slab. Estimated $360,000 construction cost. Not proposing to change alignment. Plan to avoid/minimize impacts.

- MH (ACOE): Do you anticipate having to get below the structure to do all the work?

- MH (ACOE): Do you anticipate any temporary fill?
  JH (D&K): Don't anticipate any wetlands impacts/having to get a permit

- MH (ACOE): If you do need a wetlands permit, you will need to review EFH, Northern Long-Eared Bat, Historic Review, corp permit triggers, tree clearing 3' dbh

- MH (ACOE): Verify stream jurisdiction. If there is any tree clearing on the banks of the stream, might need wetlands permit (temporary impacts) for tree clearing.

- AL (NHB): Have you submitted a report with NHB yet?
  JH (D&K): Yes, will get file number to Amy.

- MH (ACOE): Even though you might not need a permit, still will need to coordinate with USF&W Services

- Ron Crickard will touch base with JH and Ron Kleiner after the meeting about NEPA.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Northwood, #41397

Stephen Hoffmann introduced the project and provided an overview of the existing conditions. The proposed project will replace the bridge carrying Bow Lake Road over Sherburne Brook in the Town of Northwood, New Hampshire. The original bridge was constructed in 1938, and the existing deck, superstructure, and substructure are all in serious condition. The bridge is a State Municipal Red Listed Bridge. The existing span is 10'-0". The average bankfull width of Sherburne Brook at this location was measured to be 16'-3".

Existing resources in the project area consist of the stream crossing on Sherburne Brook, wetlands (including Prime Wetlands), and Outstanding Resource Waters (ORW). The range of Federally-listed species overlaps the project area, however impacts to these species are not anticipated. According to the 2015 New Hampshire Wildlife Action Plan Habitat Tiers, the project area is located within areas mapped as Supporting Landscapes, and adjacent to Highest Ranked Habitat in the Biological Region.

Sherburne Brook is a 2nd order stream with a watershed size of approximately 1.65 square miles at the crossing location. Based on this information the crossing is classified as Tier 3 according to the NH Stream Crossing Rules.

The existing bridge structure is undersized and does not meet the bankfull width guideline of 1.2 x Wbf + 2 feet. The existing span is 10'-0" while the bankfull width is 16'-3". The existing structure does not provide adequate wildlife passage due to the lack of any banks/shelves through the structure. The existing bridge is also hydraulically deficient and does not pass the NHDOT freeboard requirements for the 50- or 100-year frequency flood event.

The proposed structure will provide a larger hydraulic opening with a 22'0" clear span. The vertical profile of the road in the vicinity of the bridge will be raised approximately 6" in order to meet the hydraulic capacity requirements. This larger span meets the 1.2 x Wbf + 2 feet guideline. The proposed bridge will also incorporate a 2' wildlife shelf along both banks in front of the new abutments. The larger hydraulic opening will also meet with freeboard requirements, with 1.14 feet of freeboard during the 50-year flood, and 0.88 feet of freeboard during the 100-year flood. A natural streambed will be maintained through the structure.

Wetlands in the project area were delineated by McFarland Johnson in June 2018, including the ordinary high water and top of bank of Sherburne Brook and palustrine wetlands. There is a large impoundment approximately 100 feet upstream from the project area. An old stone dam foundation still exists but the original dam has been breached and replaced by a beaver dam. Northwood has designated Prime Wetlands, including the portion of Sherburne Brook and associated wetlands upstream and downstream from the project area.

Impacts from the construction of the new bridge are associated with the installation of the new abutments and wingwalls, the placement of riprap for scour protection, grading, and temporary construction access. Preliminary impacts are as follows:

Prime Wetlands:	36 SF Permanent / 172 SF Temporary
Channel:	72 LF / 339 SF Permanent / 622 SF Temporary
Bank:	35 LF / 130 SF Permanent

The project area is located within the watershed of the Isinglass River, an ORW, and includes a minor increase in impervious surface with a net increase of 383 SF.

Due to the minimal impacts to the channel and net improvement of the hydraulic compatibility and fish and wildlife passage, it is the opinion of McFarland Johnson that the stream impacts could be considered self-mitigating.

The primary wetland functions and values present include fish and wildlife habitat, flood storage, and shoreline anchoring. Due to the location, size, and nature of the wetland impacts, no significant net loss of wetland functions and values is anticipated. Therefore, at this time no additional mitigation for Prime Wetland impacts is being proposed.

Mike Hicks asked if any fill will be required. Mr. Hoffmann reviewed the permanent impacts and explained fill primarily consisted of riprap to be placed in front of the proposed abutments and wingwalls for scour protection. Mr. Hicks agreed that the proposed impacts could be considered self-mitigating from the Corps' perspective and the project could be authorized under the NH General Permit. Mr. Hicks

requested that tree clearing be quantified to facilitate the Corps' coordination with the USFWS on northern long-eared bat.

Carol Henderson had a question about the location of the project in relation to Bow Lake in regard to the stocking of river herring. The project is an inlet to Bow lake located upstream, and therefore, not an issue regarding river herring.

Ms. Henderson also asked about the time of year for construction and noted that Fish & Game's preference would be to keep some portion of the stream channel open for fish passage during construction. Josh Lund explained that construction was planned for the fall of 2019 (possibly Columbus Day Weekend). Mr. Lund also discussed that water diversion would be up to the selected Contractor but was anticipated to involve the use of a pipe running through the existing channel. Accelerated Bridge Construction techniques are planned to minimize the duration of impacts, with water diversion necessary for approximately 3-4 weeks.

Ron Crickard asked whether an environmental document was being compiled for this project, noting that a State-level environmental document was now required for State Aid projects. The current scope of the project does not include an environmental document. Follow up with NHDOT would take place to determine if a document would be required at this phase of the project.

Lori Sommer asked if there had been any coordination with the upstream dam owner. Mr. Hoffmann explained that none had occurred at this time, and that this was not an active dam. Ms. Sommer requested that further analysis be completed to determine if the larger bridge structure could affect hydraulics upstream and impact the wetland function and values upstream from the bridge. Ms. Sommer also requested a planting plan be developed for the area of bank impacts, and to be sure to address all of Chapter 700 in the permit application. Ms. Sommer also requested to review the mitigation summary prior to submittal of the wetland permit applications.

This project has not been previously discussed at the Monthly Natural Resource Agency Coordination Meeting.

Seabrook-Hampton, #15904 (X-A001(026))

The second Natural Resources Agency Coordination Meeting for the Hampton Harbor Bridge Project was held on January 16, 2019 at the offices of the New Hampshire Department of Transportation (NHDOT) in Concord, NH. Jennifer Reczek, NHDOT's Project Manager, opened the meeting by welcoming attendees, facilitating introductions, and outlining the agenda for the meeting. Jim Murphy, with HDR, then explained that the project team first looked at the Rehabilitation Alternative and that they're now examining replacement options, including different potential alignments. He said they've received good input through the outreach process.

Dan Hageman, a member of the HDR consultant team, explained that the initial agency coordination has identified 26 Essential Fish Habitat (EFH) species, NOAA Trust Resources, the red knot, the piping plover, the shortnose and Atlantic sturgeon, four species of sea turtles, and various state-listed plant species. He said field investigations were undertaken for wetlands, habitat types, listed species, invasive species, and evidence of the Northern long-eared bat. He said through the agency coordination and field inspection, the project team identified six State-listed Threatened or Endangered plant species in the project area. No vegetated tidal wetlands were observed on the project site. Mr. Hageman showed maps which identified the listed species populations. He said discrete populations were located with a GPS, while more dispersed populations were characterized as either sparse or dense. This approach was developed together with New Hampshire Natural Heritage Bureau (NHNHB) on an August 2018 site walk. Mr. Hageman then explained that the project site has been subject to erosion, comparing 2016 and 2018 aerials of the project site. The

images show that a vegetated area west of the southern abutment was washed away during this period. Mr. Murphy said the erosion is being addressed under a separate project.

Mr. Murphy then explained the purpose and need for the project. He said the bridge is Number 1 on the State's Red List, as well as the Rehabilitation and Replacement Priority List. There are many original mechanical components and an outdated electrical system. In addition, the waterway opening is narrow, there are no shoulders for bicyclists, and the sidewalks are narrow.

Mr. Murphy then moved on to explain the engineering studies and the alternatives being considered. The alternatives include Rehabilitation, Replacement with a Fixed Bridge, and Replacement with a Bascule Bridge. Various alignment options and heights are under consideration. Mr. Murphy explained that rehabilitation of the bridge would require replacement of the superstructure and widening of the piers. He said the bascule pier is a limiting factor. The replacement of the bridge could be undertaken on its current alignment or to the east or west of the existing bridge. He said replacement on the existing alignment would require the bridge be closed for two years with a 12-mile detour. They've investigated the construction of a temporary bridge but that wouldn't mitigate the environmental impacts and it would increase the cost of the project by $20 million. The rehabilitation alternative would also require a lengthy closure and detour or a temporary bridge. Shifting the alignment to the east or the west has the potential to impact a range of features and resources. An eastern alignment has the potential to impact residences, the entrance channel, sensitive habitat and the State Park. A western alignment has the potential to impact businesses, sensitive habitat, conservation land (NHF&G owned), the State Pier and the Hampton and Seabrook Channels.

In addition to different alignments, Mr. Murphy explained the Project Team has evaluated different bridge heights, including 34' (Bascule Bridge), 44' (Low Fixed Bridge) and 59' (High Fixed Bridge) vertical clearance. Navigational clearance and elevation change at the abutments were key factors in the definition of the geometry. He said the heights under consideration account for sea level rise, and that the 59' option is not desired due to the impacts to structures and environmental resources. He shared that they'd heard concerns from the Project Advisory Committee (PAC) and the public about the potential impacts to residences immediately southeast of the bridge with an eastern alignment. Jennifer Reczek said the project team discussed retaining walls with residents and that she thinks they could mitigate the impacts through the use of retaining walls but not eliminate them. Lori Sommer with the New Hampshire Department of Environmental Services (NHDES) asked if retaining walls were employed on the approach of a 59'-high bridge, could they avoid impacts to the residences southeast of the bridge. Ms. Reczek said it would still be tight for the house closest to the bridge. Mr. Murphy clarified that land impacts from a 59'-high bridge on the eastern alignment wouldn't impact the State Park Maintenance Building. He further explained that a western alignment would impact the conservation area southwest of the bridge and could have temporary impacts to the State Park. There could also be impacts to the rented business facilities and access driveway on the State Pier property immediately northwest of the bridge. Ms. Reczek said NHDOT has been coordinating with the State Pier about the potential relocation of these businesses to vacant spots on the property.

Carol Henderson with NH Fish and Game (NHFG) asked if the project team had coordinated with Brendan Clifford with NHFG about the piping plover nest site southwest of the bridge. Stephanie Dyer-Carroll, a member of the HDR consultant team, said Mr. Clifford had attended the agency site walk in August and provided input.

Jim Murphy then explained that both the eastern and western alignments have the potential to impact navigational channels; an eastern alignment would impact the Hampton and Seabrook Channel, while the western alignment would impact the entrance channel. Mr. Murphy said that a Fixed Bridge Alternative could accommodate a widening of the channel through the bridge to 150' horizontal clearance, while a

bascule would widen it to 80'. He said vessel users want a wider channel than currently exists and that NHDOT has initiated discussions with the US Coast Guard, who ultimately has permitting authority.

Dan Hageman concluded the presentation by recognizing that though both eastern and western alignments would impact State-listed plant species, there are viable mitigation options. He explained that once NHDOT has identified a preferred alternative, the project team will seek ways to avoid, minimize and mitigate impacts. He then outlined next steps in the planning process. He said a Public Information Meeting would be held on January 30th and that they anticipate meeting with the NH Division of Historical Resources in late January or early February. The Design Team anticipates completing a Type, Size and Location Study in the spring of 2019.

Mike Hicks with the US Army Corps of Engineers (USACE) said the project will probably require an individual Section 404 Permit. He said that the project team should coordinate with Chris Hatfield and Matt Tessier for the USACE Section 408 Permit. He then asked if the design team anticipated any blasting and Mr. Murphy said it is unlikely. Mr. Hicks said he anticipates hydraulics will be a major issue and that there may be effects to residences near the half-tide jetty. He then asked when they anticipate releasing the Environmental Assessment. Ms. Reczek said they are currently scheduled to release the document in late summer 2019, but that the Section 106 process may dictate the schedule. Mr. Hicks then asked how far the federal channel is from the bridge. Mr. Murphy said they'd need to look at the plans to provide a precise measurement and Mr. Hicks said they should coordinate with Chris Hatfield and Matt Tessier on this. Mr. Hicks asked what the design life would be of a new fixed bridge, and Mr. Murphy said it would be approximately 100 years. Mr. Hicks then asked if there would be any submarine cables. Mr. Murphy said they would need to submerge communication lines if they replaced the bridge with a bascule and that the logistics of this would be difficult. If the bridge were replaced with a fixed bridge the lines could potentially be run on the bridge.

Ms. Sommer asked if the existing bridge would be removed if a new bridge is built. Mr. Murphy said that it would be. Ms. Reczek said the property west of the bridge is owned by the state so NHDOT will coordinate with the other state agencies to determine what requirements they have. Ms. Sommer said DES will need to hold a public hearing . Carol Henderson with New Hampshire Fish and Game (NHFG) said NHDOT should coordinate with Rich Cook, land agent at NHFG, if there will be impacts to the conservation area southwest of the bridge.

Ms. Reczek asked Mr. Hicks what specifically USACE is looking for in a hydraulic study. She said they plan to investigate hydraulics in the vicinity of the bridge but that modeling the whole river system would be challenging. Mr. Hicks said NHDOT should anticipate comments from residents in the vicinity of the jetty and that they should at least examine the pre- and post-construction conditions.

Mr. Jamie Sikora with the Federal Highway Administration (FHWA) asked if there would be future public meetings. Ms. Reczek said a public information meeting would be held on January 30th and then another in the late spring to show the refined alternatives. Ms. Sommer asked when they anticipate identifying a preferred alternative. Mr. Murphy said they hoped to have a preferred alternative by the summer but that the Section 106 process could be a schedule driver. Mr. Hicks said the Section 408 staff at USACE, as well as the USCG, may have comments. Ms. Sommer asked if the project team would be coming back to present at another meeting and Mr. Hageman responded that they would. Ms. Sommer said it is too early to pinpoint mitigation needs but she anticipates impacts will require mitigation. NHDOT should coordinate with both the Towns of Seabrook and Hampton, as well as NHFG. They may also need to coordinate with the NH Department of Justice's Charitable Trust Unit if the project requires the taking of any town's land or conservation lands and then identify replacement property.

Amy Lamb with the New Hampshire Natural Heritage Bureau (NHNHB) asked if the project team had determined the square footage of potential impacts to listed species. Mr. Hageman said that they had not, that the project is still too early in the planning process. Carol Henderson with NHFG asked if they'd determined whether there is any eelgrass in the vicinity of the bridge. Ms. Dyer-Carroll said the team had coordinated with Fred Short at the University of New Hampshire and that there is not any eelgrass. Ms. Sommer asked if NHDOT anticipates retaining the footprint of the existing bridge or if the area could be restored as habitat. Ms. Reczek said they need to continue coordination regarding listed plant species. If they are impacted, it may not make sense to relocate them to the old roadway alignment since it could be used again when the next bridge reaches the end of its life span. Ms. Lamb requested the figures showing the mapped listed plant species.

Chris Williams with NHDES asked if they'd looked into the requirements for the equipment to dredge the harbor. Mr. Murphy said 44' would clear the *Currituck*, the USACE dredge vessel, at low tide. Mr. Williams pointed out that coordination and certification under the Coastal Zone Management Act will be necessary. Mr. Hicks said the USCG will have to permit the bridge.

Mr. Murphy then asked if attendees had specific thoughts on mitigation measures for the listed plant species and habitat that could be impacted under a western alignment, as the west is under serious consideration. Ms. Lamb asked what the distance is from the edge of the roadway to the western edge of a new roadway. Mr. Murphy said approximately 50'. Ms. Sommer said there is an opportunity to address the constant erosion in the area perhaps through a living shoreline. She said there is a model that was developed that shows the suitability of certain areas for a living shoreline. The project team should coordinate with the NHDES Coastal Program and the University of New Hampshire further on this. Ms. Reczek said the project team would look into this as mitigation.

Ms. Lamb said that in terms of rare plants, the western alignment is more of a concern. She asked what ideas the project team had for mitigation. Mr. Hageman suggested relocating some of the individual specimen and also relocating the media. He said the project team would need to identify suitable locations. Ms. Lamb suggested they could look at filling in the paths through the dunes. Mr. Williams said the University of New Hampshire has undertaken a Sea Grant dune restoration effort and that there's a dune grass garden north of the park that could be used as a temporary holding location for plants and media.

Ms. Henderson requested a copy of the slides with the alignments shown.

This project has been previously discussed at the 8/15/2018 Monthly Natural Resource Agency Coordination Meeting.